IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ANT: MCCORVEY, Robert

SERIAL NO.: 10/784,097 ART UNIT: 3725

FILED: February 23, 2004 EXAMINER: Le, H.C.

TITLE: PROCESS AND APPARATUS FOR FORMING OVERSIZED CIRCULAR PIPE

Supplemental Amendment A: SPECIFICATION AMENDMENTS

Revise paragraphs [0008] through [0010] as follows:

[0008] The conventional spiral pipe forming machine is manufactured by Spiral-Helix, Inc. of Buffalo Grove, Illinois. On this device, a forming head is positioned on the machine so as to extend outwardly of a frame portion. Conventionally, the forming head is of a relatively small diameter so that relatively small diameters of ductwork can be formed through the use of such spiral pipe forming process. This ductwork is often used for the passing of ventilation, air conditioning and heating within a building or a very large vehicle. The forming rollers associated with the forming head are positioned adjacent to an outwardly extending frame portion. As such, the maximum diameter of forming head that can be accommodated in such machines must be less than seventyeight inches in diameter. If the spiral pipe is of oversized diameter, then other techniques are required for the creation of such large diameter ductwork. Conventionally, when such oversized ductwork is required in a particular project, the oversize ductwork is not formed through the use of the Spiral-Helix machine, but rather through complicated seam welding processes. In other words, the large circular portion of the ductwork are formed on a roll forming machine. Each of these circular sections is then joined and welded together in end-to-end relationship. This process of forming such oversized circular pipe is extremely expensive, requires a great deal of manpower, and is relatively inefficient. Unfortunately, none of the existing machines have the capability of creating such large diameter spiral pipe. Inevitably, if a forming head of such diameter were utilized on the Spiral-Helix machine, then the edges of the circular forming head would contact the frame portions of the machine and prevent adaptation and use thereof. As such, a need has developed so as to create a forming head by which such large oversize diameter spiral pipes can be formed by using such Spiral-Helix machines. Additionally, there is a need in the art to provide the ability to create such oversize ductwork through the use of a spiral forming process rather than seam welding and roll forming.

[0009] The requirements to manufacture such large oversize diameter ductwork are particularly important in view of the expanding market for such oversize ducts. Larger athletic facilities are being created throughout the world. These athletic facilities often require the transport of air conditioning and heating to the spectators at the stadiums. As a result, there is a need to transport extremely large volumes of air conditioned or heated air from one location to another within the stadiums and athletic facilities. In other circumstances, larger and larger buildings are being built for manufacturing facilities, entertainment facilities and residential facilities. In view of the size of these large buildings, it is desirable to have such oversized ducts for the transport of large volumes